

Title (en)
VACUUM SINGLE FILER

Publication
EP 0191584 B1 19890712 (EN)

Application
EP 86300709 A 19860203

Priority
US 70074885 A 19850212

Abstract (en)
[origin: EP0191584A2] A vacuum single filer is provided for bringing multiple rows of containers (10) into single file at high speeds and over a relatively short distance. This is accomplished by discharging the containers in inclined rows of three from a slotted dead plate (32) onto a perforate conveyor belt (12) extending over vacuum plenum chambers (40, 48) having slots (120, 124) therein for drawing a vacuum. The slot or slots aligned with the outermost container in each row draws sufficient vacuum to hold the outer container in fixed position and a deflector (106) is used to direct the other containers into alignment behind the outer container and to slide them laterally across the belt as the belt moves them downstream until they are finally brought into single file alignment. An infeed vacuum conveyor (33) cooperates with the slotted dead plate (32) to arrange the containers in inclined rows having a precise alignment prior to being picked up by the conveyor belt.

IPC 1-7
B65G 47/28; **B65G 47/68**

IPC 8 full level
B65G 47/30 (2006.01); **B65G 21/20** (2006.01); **B65G 47/68** (2006.01)

CPC (source: EP US)
B65G 21/2036 (2013.01 - EP US); **B65G 47/682** (2013.01 - EP US); **B65G 2201/0244** (2013.01 - EP US)

Citation (examination)
EP 0175292 A1 19860326 - SEITZ ENZINGER NOLL MASCH [DE]

Cited by
CN103332474A; EP0414210A1; CN103332475A; CN110914178A; EP3208783A1; US10934103B2; US10176662B2; WO2022053378A1; WO2019011515A1

Designated contracting state (EPC)
BE DE FR GB IT NL

DOCDB simple family (publication)
EP 0191584 A2 19860820; **EP 0191584 A3 19870401**; **EP 0191584 B1 19890712**; AU 5339886 A 19860821; AU 572078 B2 19880428; CA 1252750 A 19890418; DE 3664308 D1 19890817; HK 81690 A 19901019; JP H0355373 B2 19910823; JP S61188320 A 19860822; SG 64890 G 19900907; US 4669604 A 19870602; ZA 86544 B 19860924

DOCDB simple family (application)
EP 86300709 A 19860203; AU 5339886 A 19860211; CA 499188 A 19860108; DE 3664308 T 19860203; HK 81690 A 19901011; JP 2188586 A 19860203; SG 64890 A 19900806; US 70074885 A 19850212; ZA 86544 A 19860124